

## **MODULE IV – SWMU CORRECTIVE ACTION PROGRAM**

### **IV.A. APPLICABILITY**

- IV.A.1. The requirements of this Module pertain to all Solid Waste Management Units (SWMUs) identified in the October 2003 RCRA Facility Investigation Work Plan (RFI Work Plan), except for the Groundwater Management Unit (GWMU). The GWMU shall be managed in accordance with Module V of this Permit.
- IV.A.2. The time frames and submittal dates in this Module supercede all previous agreements, orders, and plans regarding corrective action. The conditions in Module IV shall supercede Stipulation and Consent Order, No.8606396 regarding the investigation, monitoring and cleanup of the SWMUs at the Permittee's facility.
- IV.A.3. This Permit has been developed in accordance with the applicable requirements of UAC R315-1 through 101. All conditions within this Permit shall supercede conflicting statements, requirements, or procedures found in UAC R315-1 through 101 or attachments to this Permit.

### **IV.B. SOLID WASTE MANAGEMENT UNITS**

- IV.B.1. The Permittee shall conduct corrective action in accordance with Module IV, for each Solid Waste Management Unit (SWMU) specified in Attachment 9 or any newly identified SWMUs in accordance with Condition IV.I.
- IV.B.2. The Permittee has prioritized the SWMUs into eight groups. Table 1-1 of the RFI Work Plan is the SWMU investigation priority list. Within 60 days of issuance of this Permit, the Permittee shall submit an update to the investigation priority list, Table 1-1, for the SWMUs. The Permittee shall update Table 1-1 by January 15<sup>th</sup> of every calendar year for the life of the Permit or until the corrective action program is complete and the Executive Secretary has concurred.
- IV.B.3. Within 60 days of issuance of this permit, the Permittee shall submit updated summary tables for the SWMUs identified in Attachment 9. These summary tables shall include, at a minimum, a description of the SWMUs and the materials or wastes that it handled, and a summary of any site characterization data, corrective action work completed and the status of the unit. The Permittee shall update Attachment 9 by January 15<sup>th</sup> of every even number year from the issuance of this Permit in accordance with Condition I.D.6.
- IV.B.4. SWMUs identified in accordance with Condition IV.I. shall be added to Attachment 9 in accordance with Condition I.D.6.
- IV.B.5. The Permittee shall develop appropriate Conceptual Site Models for each SWMU or group of SWMUs in accordance with Section 6.4 of the RFI Work Plan.
- IV.B.6. The Permittee shall notify the Executive Secretary of all newly identified SWMUs in accordance with Condition IV.I, amend the list in Attachment 9 in accordance with Condition IV.B.3., and submit a SAP, as defined in the RFI Work Plan, for the investigation of the newly identified SWMU.

#### **IV.C.      INVESTIGATION OF THE SWMUs**

- IV.C.1.      The Permittee shall investigate each SWMU identified in Attachment 9, in accordance with the approved RFI Work Plan to determine the nature, magnitude and extent of known and suspected releases of solid and/or hazardous wastes and constituents. The purpose of each investigation shall be to collect data to support the evaluation of risk to human health and the environment and develop and implement site management plans or develop a petition for a No Further Action (NFA) determination in accordance with Condition IV.G. for a SWMU and or group of SWMUs.
- IV.C.2.      Within 60 days of the issuance of this permit, the Permittee shall submit an updated SWMU investigation schedule (Table 3-2 of the RFI Work Plan) for approval to the Executive Secretary. This schedule shall also identify when the Permittee plans to submit the Sampling and Analysis Plan (SAP) for a SWMU or groups of SWMUs identified in Table 3-2. The Permittee shall submit all SAPs in accordance with the approved investigation schedule.
- IV.C.3.      The SAPs identified in Condition IV.C.2. shall be developed in accordance with the RFI Work Plan and submitted to the Executive Secretary for approval. The Permittee shall implement all SAPs within 90 days of approval by the Executive Secretary.
- IV.C.4.      Within 30 days of completing all sampling and/or field investigative work identified in a SAP, the Permittee shall notify the Executive Secretary in writing that the field work portion of the SAP has been completed.
- IV.C.5.      Within 180 days of completing the field portion of any SAP, the Permittee shall submit an Investigation Completion Report (ICR) in accordance with Section 6.3 of the RFI Work Plan to the Executive Secretary for approval.
- IV.C.6.      If the Executive Secretary does not approve the ICR, he shall provide written comments to the Permittee identifying the deficiencies in the ICR. The Permittee shall address the comments and submit a revised ICR to the Executive Secretary for approval within 60 days of receipt of written comments.

#### **IV.D        ADDITIONAL INVESTIGATION**

- IV.D.1      If, after review and approval of the ICR, the Executive Secretary determines that additional investigation is needed, the Executive Secretary will notify the Permittee. The Permittee shall develop a SAP for the additional investigation in accordance with the RFI Work Plan and submit it to the Executive Secretary for approval within 90 days of receiving notice that additional investigation is needed.
- IV.D.2.      The Permittee shall implement the SAP for the additional investigation within 30 days of approval by the Executive Secretary.
- IV.D.3.      Upon completion of all sampling and/or field investigative work identified in the additional investigation SAP for the additional investigation, the Permittee shall notify the Executive Secretary in accordance with Condition IV.C.4.

- IV.D.4. Within 180 days of completing the field portion of any additional investigation SAP, the Permittee shall submit an ICR in accordance with Section 6.3 of the RFI Work Plan to the Executive Secretary for approval.
- IV.D.5. The Permittee shall use the data collected during the investigation demonstrate that the SWMU or group of SWMUs can be clean closed as defined by UAC R315-101, to develop and implement site management plans or if needed develop a corrective action plan for a for a SWMU and or group of SWMUs. The development and implementation of site management and corrective action plans by the Permittee shall be conducted in accordance with Conditions IV.E. and IV.F.

**IV.E. SITE MANAGEMENT PLANS**

- IV.E.1. Any SWMU that can not be clean closed and does not need to be remediated as described in UAC R315-101, must be managed to control the risk to human health and the environment. Following the Executive Secretary's approval of an ICR, the Permittee shall develop an appropriate and applicable Site Management Plan (SMP) for any SWMU or group of SWMUs that do not require corrective action, but can not be clean closed. The SMP shall at a minimum include the following:
- IV.E.1.a. A description of the SWMU and site characterization that includes a discussion of the magnitude, nature and extent of the contamination;
- IV.E.1.b. Identification of all potential receptors and development of a conceptual model that describes the actual and potential human and environmental impact(s) from the residual contaminants at the site;
- IV.E.1.c. A detailed description of how the risk at the SWMU will be managed to protect human health and the environment;
- IV.E.1.d. An inspection program that will be used to monitor the SWMU and ensure that the site conditions have not changed and that the site conceptual model is still appropriate. The inspection program shall include, at a minimum, a description of what will be inspected, the inspection frequency, a description of what the inspector should evaluate and how to document and resolve problems, and an inspection checklist;
- IV.E.1.e. Photos and figures needed to describe the SWMU, show the location, explain access or highlight distinctive features;
- IV.E.1.f. An environmental covenant developed in accordance with UCA Section 57-25-101 et seq., and;
- IV.E.1.g. A legal description and survey plat of the property.
- IV.E.2. The Permittee shall submit an SMP to the Executive Secretary within 90 days of receipt of approval of an ICR as identified in Condition IV.C.6.
- IV.E.3. The Executive Secretary shall provide the Permittee with written notification approving the SMP.

- IV.E.4 If the Executive Secretary is unable to approve the SMP, written comments will be provided to the Permittee identifying the deficiency in the SMP. The Permittee shall address the comments and submit a revised SMP to the Executive Secretary within 30 days of receipt of written comments.
- IV.E.5. The Permittee shall implement the SMP within 30 days of receipt of approval by the Executive Secretary.
- IV.E.6. The Executive Secretary shall provide for public participation prior to approving a SMP as required by UAC R315-101-7.

**IV.F. CORRECTIVE ACTION**

- IV.F.1 If the Permittee proposes corrective action for any SWMU based on the results of a SAP, the Permittee shall submit to the Executive Secretary for approval a Corrective Action Plan (CAP). The CAP shall be submitted within 90 days after the ICR for the SAP is approved and shall include:
  - IV.F.1.a. An introduction describing the overall purpose of the CAP;
  - IV.F.1.b. A summary on the current conditions and conceptual site model for SWMUs included in the CAP;
  - IV.F.1.c. Corrective measure objectives, including proposed media cleanup standards;
  - IV.F.1.d. An evaluation of potential corrective measure technologies which includes an assessment of the long-term reliability, effectiveness and implementability of the alternatives;
  - IV.F.1.e. A detailed description of any proposed or completed pilot, laboratory and/or bench scale studies that the Permittee has or will conduct in conjunction with the implementation of this CAP;
  - IV.F.1.f. A proposal for corrective measure(s) that shall satisfy corrective measure objectives, attain cleanup standards, control the sources of releases, and comply with applicable standards for the management of wastes; and
  - IV.F.1.e. A public participation plan.
- IV.F.2. Within 90 days of approval of the CAP by the Executive Secretary, the Permittee shall submit a Corrective Measure Implementation Plan (CMI) to the Executive Secretary for approval. The CMI Plan shall describe in detail how the approved CAP will be implemented for the identified SWMUs. The CMI Plan shall include:
  - IV.F.2.a. Engineering design plans and specifications for the approved corrective measure(s);
  - IV.F.2.b. A CMI Project Management Plan;
  - IV.F.2.c. Operation and Maintenance Plan for the approved corrective measure(s);

- IV.F.2.d. A monitoring plan that describes how the effectiveness of the approved corrective measure will be assessed;
- IV.F.2.e. Completion criteria to determine when corrective measures have achieved the cleanup objectives;
- IV.F.2.f. A Construction Workplan and construction quality assurance objectives;
- IV.F.2.g. A Public Participation Plan, and;
- IV.F.2.h. A schedule for the implementation of the corrective measures.
- IV.F.3. Upon approval of the CMI Plan, the Permittee shall implement the corrective measure(s) according to the schedule contained in the CMI Plan.
- IV.F.4. Within 90 days of completing construction of the corrective measure(s), the Permittee shall submit for the Executive Secretary's approval a CMI Report. The report shall certify that the project was built according to the design plans and specifications, and that the corrective measure is performing adequately. The report shall also include, at a minimum, the following elements:
  - IV.F.4.a. A summary on the construction of the corrective measure(s), including any deviation or modification to the design plans and specifications;
  - IV.F.4.b. Construction quality assurance documentation in accordance with UAC R315-8-2.10., and;
  - IV.F.4.c. As-built drawings and photographs.

**IV.G. DETERMINATION OF NO FURTHER ACTIONS**

- IV.G.1. The Permittee may, at any time, petition the Executive Secretary for a determination of no further action (NFA).
- IV.G.2. The NFA petition for a newly identified SWMU shall be based on the information provided in the ICR identified in Condition IV.C.5., and any other information which demonstrates that:
  - IV.G.2.a. Solid or hazardous waste, or solid or hazardous constituents are not detected; or
  - IV.G.2.b. Solid or hazardous waste, or solid or hazardous constituents have been detected, but are below background concentrations; or
  - IV.G.2.c. Solid or hazardous waste, or solid or hazardous constituents have been detected, but do not pose a threat to human health or the environment; in accordance with R315-101 of the Utah Administrative Code.
- IV.G.3. The Executive Secretary will review and either approve or deny all NFA petition and provide the Permittee with a written response detailing the approval or denial.

- IV.G.4. A determination of NFA, in accordance with Condition IV.G.1., shall not preclude the Executive Secretary from requiring further investigations, studies, or remediation at a later date if new information or subsequent analysis indicates a actual or potential of a release has occurred from a SWMU at the Permittee's facility.

**IV.H. INTERIM MEASURES**

- IV.H.1. If the Permittee determines that a release or potential release of solid or hazardous waste or hazardous constituents from a SWMU poses a threat to human health or the environment, the Permittee shall notify the Executive Secretary and develop an Interim Measures Plan (IMP). The Permittee shall notify the Executive Secretary within 15 days of making the determination and submit the IMP for approval within 30 days of making the determination. Notification under this condition shall include, at a minimum, the following information:
- IV.H.1.a. The actual or potential exposure(s) to human or environmental receptors;
  - IV.H.1.b. The potential for further degradation of environmental media absent any interim measure;
  - IV.H.1.c. A list of all solid or hazardous waste constituents that necessitate this interim measure;
  - IV.H.1.d. The presence of containers of solid or hazardous waste constituents that may result in a release;
  - IV.H.1.e. Presence and concentration of solid or hazardous waste constituent(s) in soils that have the potential to migrate to surface or ground water;
  - IV.H.1.f. Weather conditions that may increase the potential migration or leaching of contamination;
  - IV.H.1.g. Risks of fire, explosion, or accident;
  - IV.H.1.h. The time required to develop and implement a final remedy; and
  - IV.H.1.i. Other situations that may pose threats to human health or the environment.
- IV.H.2. The IMP shall include the following:
- IV.H.2.a. The proposed interim measure(s) designed to reduce the actual or potential threats to human health or the environment that are consistent with any long-term solution at the Permittee's facility;
  - IV.H.2.b. The data collection quality assurance project plan and data management plan;
  - IV.H.2.c. The design plans and specifications, construction requirements, operation and maintenance requirements, project schedules, and final design documents;
  - IV.H.2.d. The construction quality assurance objectives, inspection activities, sampling requirements, and documentation; and
  - IV.H.2.e. A schedule for submittal of progress reports and final interim measures report.

- IV.H.3. The Permittee shall implement the IMP within 30 days of receipt of approval by the Executive Secretary.
- IV.H.4. The Executive Secretary may determine that an interim measure is necessary and require the submission of an IMP as specified in Condition IV.H.1. If the Executive Secretary makes this determination, the Permittee will be notified in writing and required to submit an IMP in accordance with Condition IV.H.1.
- IV.H.5. The Permittee shall notify the Executive Secretary within 24 hours of an actual or potential release of solid or hazardous waste constituents from a SWMU that poses an imminent hazard to human health or the environment. The Permittee shall take immediate steps to control the actual or potential release and mitigate the imminent hazard. The Executive Secretary may require the Permittee to implement an interim or final corrective measure. If the Executive Secretary determines that an interim or final corrective measure is necessary to protect human health or the environment, the Permittee will be notified in writing.

**IV.I. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY IDENTIFIED SOLID WASTE MANAGEMENT UNITS**

- IV.I.1. In accordance with Condition IV.B.6., the Permittee shall notify the Executive Secretary in writing of any newly identified SWMU(s) not identified in Section IV.A. within 30 days of discovering the SWMU(s). The notification shall include the location of the new SWMU(s) and information on the suspected or known wastes at the site. New SWMUs shall be incorporated into the Permit in accordance with Condition I.D.2.
- IV.I.2. Within 90 days following the notification required by Condition IV.I.1., the Permittee shall submit a SWMU Assessment Report to the Executive Secretary for approval that describes the existing information on the nature and extent of contamination.
- IV.I.3. The SWMU Assessment Report shall include the following:
- IV.I.3.a. The SWMU location, identified on a map;
  - IV.I.3.b. The type and function of the unit, including general dimensions and a structural description;
  - IV.I.3.c. The period during which the unit was operated;
  - IV.I.3.d. A list of all wastes and their quantities managed at the SWMU;
  - IV.I.3.e. A description, including analytical data if available, of any known releases of hazardous waste or hazardous constituents from the unit;
  - IV.I.3.f. An assessment of all potential migration pathways;
  - IV.I.3.g. Identification of areas where additional information is necessary; and
  - IV.I.3.h. Based on the results of the SWMU assessment, a proposal for further investigation in accordance with Condition IV.C., corrective action in accordance with Condition IV.F.1., or no further action in accordance with Condition IV.G.

- IV.I.4 If the Executive Secretary is unable to approve the SWMU Assessment Report, written comments will be provided to the Permittee identifying the deficiency in the SWMU Assessment Report. The Permittee shall address the comments and submit a revised SWMU Assessment Report to the Executive Secretary within 30 days of receipt of written comments.

**IV.J. REPORTING REQUIREMENTS**

- IV.J.1. The Permittee shall submit to the Executive Secretary written annual progress reports of all activities conducted pursuant to the Conditions of Module IV.
- IV.J.2. The annual progress reports shall be submitted each calendar year on or before February 15<sup>th</sup> and shall contain:
- IV.J.2.a. A description of the work completed;
- IV.J.2.b. Summaries of all findings;
- IV.J.2.c. Summaries of all problems encountered during the reporting period and actions taken or to be taken to rectify problems; and
- IV.J.2.d. Projected work for the next reporting period.
- IV.J.3. All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to Conditions in Module IV shall be maintained by the Facility for the effective term of this permit. These records shall be made accessible to the Executive Secretary upon request.
- IV.J.4. This Permit contemplates the submittal of plans and reports within specific time frames, required by Module IV. If the Permittee is unable to comply with any due date, the Permittee shall request an extension. When making a request for an extension to the Executive Secretary, the Permittee shall detail the reasons that he is unable to meet the due date. All requests for an extension must be submitted to the Executive Secretary on or before the due date for the plan or report. The Executive Secretary will evaluate each extension request and notify the Permittee in writing whether the extension can be granted.
- IV.J.5. The Executive Secretary may require the Permittee to conduct new or more extensive assessments, investigations, or studies, as needed, based on information provided in these progress reports or other supporting information.

**IV.K. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION**

- IV.K.1. The Permittee shall be financially responsible for the development and implementation of the corrective action program in accordance with UAC R315-8-6.12(b).

**IV.L. PUBLIC PARTICIPATION**

- IV.L.1. Prior to approving any SAP, CAP, IMP or NFA petition, the Executive Secretary may provide for public participation as defined by UAC R315-101-7.